REMARKS

At the outset, the Applicants gratefully acknowledge the allowance of claims 23 and 24. During review of claim 23, it was noticed that the limitation "a second command" occurs twice. This duplication has been cured by changing the second "second command" to read "third command", with subsequently numbered commands being appropriately conformed to the amended numbering.

In ¶ 3 of the Office Action, claims 1, 5, 7-10, 13-15, 19, 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Adan *et al.* (US 6,303,924) in view of Jago *et al.* (US 5,938,607). The Applicants traverse this ground of rejection for the following reasons.

In support of the rejection, the Examiner has combined various components from the input device (i.e., mouse) of Adan with various components of the ultrasonic imaging system disclosed in Jago. The office action states that it would have been obvious to use the memory and serial port as taught by Jago in the system of Adan "because Jago provides Adan improvements in ultrasonic imaging systems which can access data, images[,] messages and other kinds of information from other ultrasound systems and information sources". However, combining components in the manner proposed would not result in Applicant's invention.

In fact, the proposed prior art combination is fallacious on several levels. In the first place, Adan teaches an optical

mouse that scans a surface and has programming for recognizing coded patterns in the image of the scanned surface. However, this image does not leave the mouse! It is not sent from the mouse to the computer, and therefore is not sent from the computer to some other remotely located computer. The entire teaching of Adan is directed to the message (not image) sent from the mouse to the computer. That mouse message is shown, for example, in Figures 2B and 9. The mouse also has an image or pattern detector 110 "capable of detecting images or patterns from information carried by electromagnetic radiation impinging thereon and providing a signal indicative thereof" (see col. 7, lines 40-43). It is this "signal" that is sent from the mouse to the computer, not the image of the detected pattern.

This process is explained in detail in the section designated "DETECTION OF SPECIALLY CODED IMAGES", which starts at line 49 in column 11 of the Adan patent. As stated in that section, "mouse controller 112 and image detector 110 can also detect specially coded images" [col. 11, lines 53-55]. Quoting extensively from the Adan patent:

> Upon receiving these digitized signals, control component 124 identifies the coded pattern and provides it to matching component 166. Matching component 166 accesses an image table 128 which stores data indicative of all coded images which can be recognized by controller 112. Matching component 126 uses any suitable, and preferably simple, matching algorithm to match the image identified by control component 124 to a predetermined coded image stored in image table 128. Illustratively, image table 128 not only stores data indicative of the images to be recognized but also includes a value associated with the recognized image, and which can be used in the

> mouse packet generated by control component 124 in passing the desired information back to computer 20.
>
> In order to generate the mouse packet, control component 124 preferably generates a new mouse packet generally illustrated by the number 170 in FIG. 9. Packet 170 is similar to packet 66 illustrated in FIG. 2B, except that it includes an additional byte 172 of information. Byte 172, as with the other bytes in packet 170, preferably includes eight bits of information which are used to encode the fact that control component 124 has, indeed, recognized a predetermined image which resides in image table 128, and which also includes the value in image table 128 associated with the coded pattern which has been identified.

[Column 12, lines 18-43; emphases added.] As clearly demonstrated by the underlined portions in the foregoing extract, the mouse message includes a "value . . . associated with the coded pattern which has been identified", not the coded pattern itself. Thus, contrary to the Examiner's characterization of this portion of the Adan patent, Adan does not have "means for associating said study identifier with said frame of image data in a first format (column 12, lines 35-43)" [page 2 of the Office Action]. The mouse message (sent from the mouse to the computer) includes a value that identifies the image, but does not include the image itself. Obviously this is consistent with the obvious fact that the computer has no need for the image of the coded pattern appearing on the surface over which the mouse travels. The computer only needs to know which coded pattern was detected so that the computer may respond appropriately to the mouse user's instruction.

The foregoing is only the first flaw in the obviousness analysis presented in the Office Action. The Examiner also relies on Adan for the teaching of a parallel port, but that parallel port is completely irrelevant to operation of Adan's mouse. Column 5, line 1, of Adan, cited by the Examiner, merely states that the various input devices may be connected to the processing unit 51 by various interfaces, including a serial port interface 46 or a parallel port. Later, the Adan patent states that the controller 112 of the mouse provides position information "according to a conventional format, such as through a serial interface, a universal serial bus (USB) interface, or in any other suitable interface format. Adan contains no teaching that the mouse message is sent via a parallel port. Moreover, since the mouse message shown in Figure 2B, for example, comprises only four bytes of information, it would appear to be pointless to send those bytes via a parallel port.

The foregoing demonstrates that the Examiner's reliance on Adan is completely misplaced and appears to be based on a mistaken interpretation of how the mouse in Adan operates.

Based on this mistaken premise, the Examiner then combines the teaching of Jago with the teaching of Adan. Jago discloses an ultrasonic imaging system wherein both images and reports are stored in image/report storage device 24. The Jago specification discloses:

> For referring physicians, the diagnosing physician can image a patient and prepare a report on the ultrasound

> system, then send the images and report as an electronic message or message attachment directly to the referring physician from the ultrasound system using the system's electronic messaging capability.

[Col. 7, line 66 through col. 8, line 4; emphasis added.] For this purpose, the ultrasonic imaging system of Jago comprises an HTTP server (30 in Figure 1) that connects to a communications network via a modem (32 in Figure 1). "The HTTP server 30 is connected to access ultrasonic images and reports from the storage medium 24, and makes the system's images and reports accessible to a personal computer, terminal, or workstation at a remote location." [Col. 3, lines 20-24.] "The server 30 is connected to the modem 32 through a serial port 31." [Col. 3, lines 31-32.]

It is apparent from the foregoing that Jago teaches sending both images and reports to a communications network via a serial port. Thus, Jago teaches away from Applicant's invention, wherein the image data is sent out a parallel port while the report data is sent out a serial port.

Finally, it must also be noted that the proposed combination of the teachings of Adan and Jago seeks to combine an optical mouse (Adan) with an ultrasonic imaging system (Jago). While it is certainly possible to substitute the mouse of Adan for the mouse in Jago, the Adan patent does not contain any teaching that would be relevant to the operation of the ultrasonic imaging system shown in Figure 1 of Jago. More specifically, since Adan does not teach sending an image from

the mouse to the computer (let alone sending such an image via a parallel port), the Applicants can see absolutely no basis for any contention that it would have been obvious to change the system of Jago so that the image is sent via a parallel port and the report is sent via a serial, instead of both being sent via a serial port, as taught by Jago.

In view of the foregoing, the Applicants respectfully request that the obviousness rejection based on the combination of Adan and Jago be withdrawn.

In ¶ 4 of the Office Action, claims 2-6, 11, 12, 16-18, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Adan in view of Jago as applied to claim 1, and further in view of Van de Velde (US 5,646,416). The Applicant traverses this ground of rejection for the following reasons.

All of rejected claims 2-6, 11, 12, 16-18, and 20 are dependent claims. The Van de Velde patent does not teach sending image data via a parallel port and sending report data via a serial port. Therefore, these claims are patentable at least for the same reasons, stated above, that the independent claims are patentable over Adan in view of Jago.

More fundamentally, the Van de Velde system has no use for Applicant's invention since the problem solved by Applicant's invention does not exist in the Van de Velde system. In Van de Velde, the identification station 4 associates an identifier with the x-ray image by writing that identifier (and other

patient and examination information) into the EEPROM incorporated into the cassette that holds the x-ray image. Thus there is no issue concerning sending the image and the data separately to a remote device and then linking that image and data at the remote device by a common identifier. In Van de Velde, the image and the data are linked by the physical connection of the cassette and the EEPROM. Thus Van de Velde neither discloses nor suggests sending the image and data in different formats and separately to respective ports, each transmitted object or file having the study identifier attached.

In view of the foregoing, the Applicants submit that this application is now in condition for allowance. Reconsideration of the application and allowance of claims 1-24 are hereby requested.

Respectfully submitted,

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Dennis M. Flaherty
Reg. No. 31,159
Ostrager Chong & Flaherty LLP
825 Third Avenue, 30th Floor
New York, New York 10022-7519
Tel. No.: 212-826-6565

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February 15, 2004
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Dennis M. Flaherty